Application Serial No: 09/808,973
In reply to Office Action of 1 October 2003

Attorney Docket No. 79485

AMENDMENTS TO THE CLAIMS

1. (Currently amended): An apparatus for remotely and automatically adjusting the volume of a remotely controlled audio device, comprising:

a sensor circuit for detecting audio signals generated by the audio device and generating a signal representative of an amplitude of the detected audio signal;

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means for obtaining a reference audio signal amplitude from a user;

a difference circuit for determining a difference between an amplitude of the signal outputted by the sensor circuit and a the reference audio signal amplitude and for generating a difference signal that represents this difference; and

a control circuit for generating a control signal that effects at least one of attenuation, augmentation and maintenance of the amplitude of the audio signals generated by the audio device in accordance with the

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difference signal ~~when the sensor circuit detects an audio signals~~.

2. (Currently amended): The apparatus according to claim 1 wherein the sensor circuit further comprises an amplifier for amplifying the detected audio signal before it is outputted to the difference circuit.

3. (Original): The apparatus according to claim 1 wherein the sensor circuit comprises a directional microphone for detecting audio signals outputted by the device.

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4. (Currently amended): The apparatus according to claim 1 wherein the means for obtaining a reference audio signal amplitude provides the audio signal amplitude in digital form, and the difference circuit further comprises an analog-to-digital-converter for converting the detected audio ~~signals~~ signal amplitude into digital data.

5. (Original): The apparatus according to claim 1 further comprising a difference signal transfer circuit that transfers the difference signal to the control circuit when the sensor circuit detects an audio signal.

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6. (Original): The apparatus according to claim 5 wherein the difference signal transfer circuit comprises a sound activation circuit.

7. (Original): The apparatus according to claim 1 wherein the control signal effects attenuation of the amplitude of the audio signals generated by the audio device when the amplitude of the sensor circuit output signal exceeds the reference audio signal amplitude by a predetermined magnitude.

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8. (Original): The apparatus according to claim 1 wherein the control signal effects augmentation of the amplitude of the audio signals generated by the audio device when the reference audio signal amplitude exceeds the amplitude of the sensor circuit output signal by a predetermined magnitude.

9. (Original): The apparatus according to claim 1 wherein the control signal effects maintenance of the amplitude of the audio signals generated by the audio device when the amplitude of the sensor circuit output signal is generally the same as the reference audio signal amplitude.

10. (Original): The apparatus according to claim 1 wherein the control circuit comprises a transmitter circuit for transmitting

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the control signal to a control signal receiver of the audio device.

11. (Original): The apparatus according to claim 1 further comprising a switch that permits a user to activate or deactivate the apparatus.

12. (Original): The apparatus according to claim 1 further comprising a sound activation circuit that transfers the difference signal to the control circuit when the sensor circuit detects an audio signal.

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13. (Currently amended): An apparatus for remotely and automatically adjusting the volume of a remotely controlled audio device, comprising:

a directional microphone for detecting audio signals generated by the audio device and generating a signal representative of an amplitude of the detected audio signal;

obtaining a reference audio signal amplitude from a user;

a difference circuit for determining a difference between an amplitude of the signal outputted by the

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directional microphone and ~~a~~ the reference audio signal amplitude and for generating a difference signal that represents this difference;

a control circuit for generating a control signal that effects at least one of attenuation, augmentation and maintenance of the amplitude of the audio signals generated by the audio device in accordance with the difference signal; and

a sound activation circuit for transferring the difference signal to the control circuit when the directional microphone detects an audio signal.

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14. (Currently amended): A method for remotely and automatically adjusting the volume of a remotely controlled audio device, comprising:

detecting an audio ~~signals~~ signal generated by the audio device; ~~and~~

generating a detected audio amplitude signal representative of an amplitude of the detected audio signal;

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obtaining a reference audio signal amplitude from a user;

determining a difference signal as the difference between ~~the amplitude of~~ the detected audio amplitude signal ~~generated in the detecting step~~ and the reference audio signal amplitude ~~and generating a difference signal that is representative of this difference~~; and

generating a control signal that ~~effects at least one of attenuation, augmentation and maintenance of the amplitude~~ adjusts the volume of the audio signals outputted by the audio device in accordance with the difference signal if ~~an~~ the detected audio amplitude ~~of the~~ signal ~~generated in the detecting step in~~ varies greater than a predetermined amount from the reference audio signal amplitude.

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15. (Currently amended): The method according to claim 14 further comprising amplifying the detected audio amplitude signal ~~resulting from detecting the audio signal~~.

16. (Canceled).

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17. (Currently amended): The method according to claim 14 further comprising converting the detected audio amplitude signal ~~resulting from detecting the audio signal~~ into a digital ~~data~~ audio amplitude signal.

18. (Currently amended): The method according to claim 17 wherein

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the step of obtaining comprises obtaining a digital reference audio signal amplitude; and

the step of determining further includes[[:]] ~~providing digital data representing the reference audio signal amplitude; and~~ comparing the digital ~~data representing the~~ audio amplitude ~~of the signals resulting from detecting the audio~~ signal and the digital ~~data representing the~~ reference audio signal amplitude.

19. (Original): The method according to claim 14 further including transmitting the control signal to a control signal receiver of the audio device.

20. (Currently amended): The method according to claim 14 wherein generating the control signal comprises generating a

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control signal that ~~effects attenuation of the amplitude~~ reduces the volume of the audio signals generated by the audio device when the detected audio amplitude ~~of the~~ signal ~~resulting from detecting the audio signal~~ exceeds the reference audio signal amplitude by a predetermined magnitude.

21. (Currently amended): The method according to claim 14 wherein generating the control signal comprises generating a control signal that increases the ~~amplitude~~ volume of the audio signals generated by the audio device when the reference audio signal amplitude exceeds the detected audio amplitude ~~of the~~ signal ~~resulting from detecting the audio signal~~ by a predetermined magnitude.

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22. (Currently amended): The method according to claim 14 wherein generating the control signal comprises generating a control signal that maintains the ~~amplitude~~ volume of the audio signals generated by the audio device when the detected audio amplitude ~~of the~~ signal ~~resulting from detecting the audio signal~~ is ~~generally the same as~~ within a predetermined magnitude of the reference audio signal amplitude.

23. (Original): The method according to claim 14 wherein detecting the audio signal comprises:

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providing an acoustic signal sensor; and

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positioning the sensor so as to facilitate reception of the audio signals generated by the audio device.

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